

### AMENDMENTS TO THE SPECIFICATION

Page 20, amend paragraphs [0054] and [0055] as follows:

#### ~~BRIEF EXPLANATION OF DRAWINGS~~

~~[0054]~~

~~FIG. 1 is a block diagram outlining the optical measurement apparatus for living body of this invention.~~

~~FIG. 2 is a block diagram showing the relationship between measurement site and measurement point (channel).~~

~~FIG. 3 is a diagram showing a hemoglobin amount change signal in each channel, obtained by the measurement shown in FIG. 2.~~

~~FIG. 4 is a flowchart showing the procedures for processing signals in the optical measurement apparatus for living body of this invention.~~

~~FIG. 5 is a flowchart showing the procedures for separating noise in the optical measurement apparatus for living body of this invention.~~

~~FIG. 6 is a diagram showing an example of a screen displaying principal component waveforms separated by the principal component analysis and eigenvectors.~~

~~FIG. 7 is a diagram showing an example of GUI when the component waveform is selected automatically.~~

~~FIG. 8 is a diagram showing hemoglobin amount change signals after reconstruction.~~

~~FIG. 9 is a diagram showing an example of a screen displaying component waveforms (independent signals) separated by the independent component analysis and a mixed matrix/extract matrix.~~

#### ~~EXPLANATION OF SYMBOLS~~

[0055]

~~10 . . . light source unit, 20 . . . optical measurement unit, 31 . . . signal processing unit, 32 . . . control unit, 32 . . . storage unit, 20 . . . input/output unit, 40 . . . probe.~~

Page 5, amend paragraph [0013] as follows:

[0013]

In this invention, the noise removing method may comprise a step for separating the living body measurement signals reconstructed in the reconstructing step into multiple component signals and a step for reconstructing them. In this invention, preferably, the noise removing method further comprises a step for selecting certain component signals from the multiple separated component signals. This step selects certain component signals, by using, for example, correlation values between component signals and a pre-determined reference signal and/or standard deviations of the differential waveforms of the component signals.

#### BRIEF EXPLANATION OF DRAWINGS

[0013a]

FIG. 1 is a block diagram outlining the optical measurement apparatus for living body of this invention.

FIG. 2 is a block diagram showing the relationship between measurement site and measurement point (channel).

FIG. 3 is a diagram showing a hemoglobin amount change signal in each channel, obtained by the measurement shown in FIG. 2.

FIG. 4 is a flowchart showing the procedures for processing signals in the optical measurement apparatus for living body of this invention.

FIG. 5 is a flowchart showing the procedures for separating noise in the optical

measurement apparatus for living body of this invention.

FIG. 6 is a diagram showing an example of a screen displaying principal component waveforms separated by the principal component analysis and eigenvectors.

FIG. 7 is a diagram showing an example of GUI when the component waveform is selected automatically.

FIG. 8 is a diagram showing hemoglobin amount change signals after reconstruction.

FIG. 9 is a diagram showing an example of a screen displaying component waveforms (independent signals) separated by the independent component analysis and a mixed matrix/extract matrix.

#### EXPLANATION OF SYMBOLS

[0013b]

10 . . . light source unit, 20 . . . optical measurement unit, 31 . . . signal processing unit, 32 . . . control unit, 32 . . . storage unit, 20 . . . input/output unit, 40 . . . probe.